

Date: Fri, 18 Mar 94 21:07:27 PST  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V94 #305  
To: Info-Hams

Info-Hams Digest                      Fri, 18 Mar 94                      Volume 94 : Issue    305

Today's Topics:

10 meter repeater...  
1x1 Callsigns?  
FT1000D & Heil Pro-set 4?  
Ham Radio FTP area on Oakland  
Heath 2036 manual  
ORBS\$077.2L.AMSAT  
ORBS\$077.MICRO.AMSAT  
ORBS\$077.OSCAR.AMSAT  
ORBS\$077.WEATH.AMSAT  
PC-COM TNC  
qsl info

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 16 Mar 94 18:56:00 GMT  
From: ihnp4.ucsd.edu!swrinde!emory!news-feed-2.peachnet.edu!concert!news.duke.edu!  
duke!wolves!psybbs!fredmail@network.ucsd.edu  
Subject: 10 meter repeater...  
To: info-hams@ucsd.edu

Does (or has) anyone out there have experience with 10 meter repeater  
construction/installation? I have a machine nearly completed, and would  
like to share info/ask for voices of experience in this matter. Any  
input would be appreciated. 73 de WB4IUY 29.680/29.580

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X OLX 2.2 X 2 most common elements in the universe:Hydrogen,Stupidity

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Date: Thu, 17 Mar 1994 17:33:52 GMT  
From: ihnp4.ucsd.edu!sdd.hp.com!hpscit.sc.hp.com!hplextra!hplb!hpwin052!hpqmoea!  
dstock@network.ucsd.edu  
Subject: 1x1 Callsigns?  
To: info-hams@ucsd.edu

ITU regulations govern what sorts of radio transmissions a country may permit. The country is free to choose not to permit all of the things that it could.

All callsigns issued by a country must use the assigned initial characters, but the subsequent characters are chosen freely by that country, and assigned to permitted stations however that country wishes.

That's why there's so much variation in how countries handle regional and licence class differences.

The UK got G, M, and some things beginning with 2 when the alphabet got shared out and decided to use G, possibly a second letter, digit for amateurs, and all letter calls beginning with M for government stuff. As a 1-off special offer, MØRSE was issued for a limited period to an amateur group. The new novice licence uses the 2 series.

I've no idea who chose an allocation with such a memorable mnemonic for the US. T'wasn't me, I wasn't born then....

Cheers  
david GM4ZNX

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Date: Thu, 17 Mar 94 08:18:40 MST  
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!news.intercon.com!udel!  
pacs.sunbelt.net!lynx.unm.edu!dns1.NMSU.Edu!dns1.NMSU.Edu!usenet@network.ucsd.edu  
Subject: FT1000D & Heil Pro-set 4?  
To: info-hams@ucsd.edu

On Tue, 15 Mar 1994 21:12:49 GMT, Sandy Lynch wrote:

>  
>I have recently ordered the new Heil Pro-set 4 headset to go with  
>my FT-1000D. Unfortunately, since I am still in temporary digs, I have  
>no antenna and no way to use the rig - yet. However, I have heard  
>that there may be some difficulties in getting enough audio drive

>out of the FT1000 to the Pro-set headset. Does anyone have first-hand  
>experience with this? Is there really a potential problem?

>

>Cheers de Sandy WA6BXH/7J1ABV slay@netcom.com WA6BXH@N0ARY  
Sandy: I have the new Heil Pro-Headset and an FT 1000D and there is a  
problem. The headphone jack in the 1000 is driven by a low level stereo  
signal for separation of the two rx. when in the dual mode. The normal  
speaker output is a both signals summed output at higher level. the Heil  
set appears to be a 4-8 ohm device looking for the kind of drive available  
from the speaker jack. The headset works fine if I connect it to the  
speaker output but has far too low audio level if I connect it to my  
headphone jack. 73 Bill

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Date: Fri, 18 Mar 1994 11:12:21 GMT  
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!math.ohio-state.edu!  
magnus.acs.ohio-state.edu!csn!csus.edu!netcom.com!wylz@network.ucsd.edu  
Subject: Ham Radio FTP area on Oakland  
To: info-hams@ucsd.edu

This is a periodic reminder that the Boston Amateur Radio Club maintains an  
FTP area on oak.oakland.edu (141.210.10.117) in /pub/hamradio.

Oakland is available via the following methods:

On most systems, the command needed is: ftp oak.oakland.edu  
or: ftp 141.210.10.117  
For Gopher: gopher gopher.oakland.edu 70  
World Wide Web URL: <http://www.acs.oakland.edu>

Please feel free to browse through the area.

If anyone has any questions about it, please do not hesitate to e-mail  
either of the co-moderators listed below.

Also, up-to-date copies of the files on the ARRL's information server  
([info@arrl.org](mailto:info@arrl.org)) are available in the directory /pub/hamradio/ARRL/Server-files

Source code for programs is always welcome. It can permit people to use  
those programs on other computers with other operating systems.

Scott Ehrlich, WY1Z, co-moderator  
[wylz@netcom.com](mailto:wylz@netcom.com)

Phil Temples, K9HI, co-moderator  
k9hi@netcom.com

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=====
| Scott Ehrlich      Amateur Radio: wylz      AMPRnet: wylz@wa1phy.ampr.org |
| Internet: wylz@neu.edu  BITnet: wylz@NUHUB    AX.25: wylz@wa1phy.ma.usa.na |
|-----|
|           Maintainer of the Boston Amateur Radio Club hamradio FTP area on |
| oak.oakland.edu:/pub/hamradio      |
=====
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Date: 18 Mar 1994 10:59:21 GMT  
From: ihnp4.ucsd.edu!galaxy.ucr.edu!library.ucla.edu!europa.eng.gtefsd.com!gatech!  
mailer.acns.fsu.edu!freenet3.scri.fsu.edu!freenet2.scri.fsu.edu!  
ka4hpb@network.ucsd.edu  
Subject: Heath 2036 manual  
To: info-hams@ucsd.edu

Ty:

How you doing.....I have a Heath HW-2036a and its manual,although  
I am not willing to part with the manual,I may be talked into copying  
parts of the manual,I assume that the radio is already put together  
so he probably won't neet the assembly instructions,so if he thinks  
I can help,just let me know,you can respond to me via freenet, the  
address is KA4HPB@Freenet.SCRI.FSU.EDU.....see ya.....

Joe,

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Date: 18 Mar 94 13:38:00 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: ORBS\$077.2L.AMSAT  
To: info-hams@ucsd.edu

SB KEPS @ AMSAT \$ORBS-077.N  
2Line Orbital Elements 077.AMSAT

HR AMSAT ORBITAL ELEMENTS FOR AMATEUR SATELLITES IN NASA FORMAT  
FROM WA5QGD FORT WORTH,TX March 18, 1994  
BID: \$ORBS-077.N

DECODE 2-LINE ELSETS WITH THE FOLLOWING KEY:

1 AAAAAU 00 0 0 BBBB.BBBBBBBB .CCCCCCC 00000-0 00000-0 0 DDDZ  
2 AAAAA EEE.EEEE FFF.FFFF GGGGGGG HHH.HHHH III.IIII JJ.JJJJJJJKKKKKZ

KEY: A-CATALOGNUM B-EPOCHTIME C-DECAY D-ELSETNUM E-INCLINATION F-RAAN  
G-ECCENTRICITY H-ARGPERIGEE I-MNANOM J-MNMOTION K-ORBITNUM Z-CHECKSUM

TO ALL RADIO AMATEURS BT

A0-10

1 14129U 83058B 94074.03621199 -.000000107 00000-0 10000-3 0 2699  
2 14129 27.1901 337.1540 6022168 162.1847 234.6755 2.05878068 80842

U0-11

1 14781U 84021B 94076.08262229 .000000387 00000-0 73489-4 0 6746  
2 14781 97.7911 95.1034 0010946 200.8625 159.2135 14.69171604536786

RS-10/11

1 18129U 87054A 94075.40199974 .000000041 00000-0 28565-4 0 8829  
2 18129 82.9231 37.4191 0010266 287.1702 72.8326 13.72333370337187

A0-13

1 19216U 88051B 94072.40935734 .000000166 00000-0 10000-4 0 8939  
2 19216 57.8759 263.4718 7210812 336.8024 2.5676 2.09719189 44000

F0-20

1 20480U 90013C 94071.45658699 -.000000021 00000-0 25451-4 0 6688  
2 20480 99.0216 241.6090 0540420 198.5456 159.5252 12.83224395191726

A0-21

1 21087U 91006A 94072.89324047 .000000094 00000-0 82657-4 0 4443  
2 21087 82.9367 213.2088 0035958 352.1754 7.8836 13.74535804156493

RS-12/13

1 21089U 91007A 94075.53910009 .000000057 00000-0 44794-4 0 6721  
2 21089 82.9174 80.1605 0030126 9.5405 350.6312 13.74037277155921

ARSENE

1 22654U 93031B 94064.500000000 -.000000119 00000-0 00000 0 0 2469  
2 22654 1.6510 105.2680 2927552 173.8780 198.1380 1.42201225 2991

U0-14

1 20437U 90005B 94072.21549149 .000000072 00000-0 44764-4 0 9737  
2 20437 98.5925 158.2846 0011701 110.0876 250.1559 14.29829808215874

A0-16

1 20439U 90005D 94076.19336562 .000000065 00000-0 42387-4 0 7743  
2 20439 98.6002 163.3475 0012127 99.9777 260.2776 14.29885704216451

D0-17

1 20440U 90005E 94076.22662674 .000000074 00000-0 45623-4 0 7730  
2 20440 98.6015 163.6736 0012240 99.1450 261.1119 14.30024568216474

W0-18

1 20441U 90005F 94072.21203773 .000000059 00000-0 39794-4 0 7743  
2 20441 98.6013 159.7138 0012829 111.2783 248.9762 14.29998941215900

L0-19

1 20442U 90005G 94076.18464293 .000000080 00000-0 47723-4 0 7734  
2 20442 98.6015 163.8733 0013183 99.4776 260.7899 14.30094641216486

U0-22

1 21575U 91050B 94075.24420930 .000000097 00000-0 47355-4 0 4757  
2 21575 98.4400 151.5895 0007108 202.4817 157.6059 14.36899328139730

K0-23

1	22077U	92052B	94076.18255996	-.000000037	000000-0	10000-3	0	3705
2	22077	66.0833	112.6185	0011519	310.3641	49.6367	12.86285535	74950
AO-27								
1	22825U	93061C	94072.21774410	.000000113	000000-0	63718-4	0	2702
2	22825	98.6611	148.9612	0009401	126.7150	233.4895	14.27613170	23998
IO-26								
1	22826U	93061D	94072.20569811	.000000134	000000-0	71926-4	0	2702
2	22826	98.6611	148.9734	0009962	126.0055	234.2050	14.27715988	23995
KO-25								
1	22830U	93061H	94076.16166154	.000000077	000000-0	48244-4	0	2746
2	22830	98.5601	151.1197	0012546	85.4566	274.8057	14.28040646	24568
NOAA-9								
1	15427U	84123A	94074.03402688	.000000126	000000-0	90853-4	0	7505
2	15427	99.0656	123.3704	0015705	122.8642	237.4045	14.13597974477046	
NOAA-10								
1	16969U	86073A	94073.99072129	.000000108	000000-0	64636-4	0	6475
2	16969	98.5121	85.8616	0012156	244.1267	115.8662	14.24872785389191	
MET-2/17								
1	18820U	88005A	94076.18240290	.000000127	000000-0	99308-4	0	2729
2	18820	82.5456	341.7797	0018514	79.0102	281.3131	13.84711418309624	
MET-3/2								
1	19336U	88064A	94072.89393314	.000000051	000000-0	10000-3	0	2689
2	19336	82.5411	31.1102	0017651	137.2192	223.0298	13.16965600270718	
NOAA-11								
1	19531U	88089A	94073.96248747	.000000086	000000-0	71361-4	0	5590
2	19531	99.1660	60.5963	0012728	40.9981	319.2144	14.12967309281919	
MET-2/18								
1	19851U	89018A	94075.85339731	.000000027	000000-0	10933-4	0	2716
2	19851	82.5182	217.5195	0015409	122.8587	237.3935	13.84358686254919	
MET-3/3								
1	20305U	89086A	94075.88142870	.000000044	000000-0	10000-3	0	43
2	20305	82.5576	333.8085	0006499	152.2875	207.8581	13.04425109210860	
MET-2/19								
1	20670U	90057A	94075.63449506	.000000024	000000-0	79036-5	0	7734
2	20670	82.5434	281.9855	0017468	47.7992	312.4642	13.84190213187814	
FY-1/2								
1	20788U	90081A	94076.22426307	-.000000172	000000-0	-85968-4	0	9199
2	20788	98.8393	99.2948	0013308	265.4548	94.5096	14.01312219180823	
MET-2/20								
1	20826U	90086A	94071.91097536	.000000059	000000-0	40218-4	0	7814
2	20826	82.5228	222.5667	0012920	323.8660	36.1626	13.83574515174445	
MET-3/4								
1	21232U	91030A	94071.87651682	.000000051	000000-0	10000-3	0	6792
2	21232	82.5362	237.6665	0014715	65.8899	294.3776	13.16460820138681	
NOAA-12								
1	21263U	91032A	94074.00396538	.000000180	000000-0	10013-3	0	9646
2	21263	98.6278	103.8182	0013418	145.8585	214.3456	14.22379795147143	
MET-3/5								

1 21655U 91056A 94076.19735930 .000000051 00000-0 10000-3 0 6877  
 2 21655 82.5556 181.6999 0014730 67.7742 292.4937 13.16828055124353  
 MET-2/21  
 1 22782U 93055A 94072.07378319 .000000044 00000-0 26732-4 0 2819  
 2 22782 82.5479 282.6058 0022877 131.3043 229.0093 13.83002641 26809  
 POSAT  
 1 22829U 93061G 94072.24139185 .000000073 00000-0 47209-4 0 2637  
 2 22829 98.6566 149.0227 0010769 114.2722 245.9582 14.28010738 24007  
 MIR  
 1 16609U 86017A 94075.82181288 .000007619 00000-0 10511-3 0 1779  
 2 16609 51.6463 289.2936 0015053 41.3927 318.8353 15.58193902461643  
 HUBBLE  
 1 20580U 90037B 94073.54142216 .00001087 00000-0 93515-4 0 4574  
 2 20580 28.4691 123.9060 0006308 177.0781 182.9845 14.90525553 15255  
 GRO  
 1 21225U 91027B 94074.15950667 .000005538 00000-0 12661-3 0 737  
 2 21225 28.4604 164.6497 0003468 223.7721 136.2602 15.40375395 42424  
 UARS  
 1 21701U 91063B 94076.25976255 .000002830 00000-0 26775-3 0 4872  
 2 21701 56.9834 167.4368 0004269 96.1849 263.9671 14.96533180137174  
 /EX

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Date: 18 Mar 94 13:31:00 GMT  
 From: news-mail-gateway@ucsd.edu  
 Subject: ORBS\$077.MICRO.AMSAT  
 To: info-hams@ucsd.edu

SB KEPS @ AMSAT \$ORBS-077.D  
 Orbital Elements 077.MICROS

HR AMSAT ORBITAL ELEMENTS FOR THE MICROSATS  
 FROM WA5QGD FORT WORTH,TX March 18, 1994  
 BID: \$ORBS-077.D  
 TO ALL RADIO AMATEURS BT

Satellite: UO-14  
 Catalog number: 20437  
 Epoch time: 94072.21549149  
 Element set: 973  
 Inclination: 98.5925 deg  
 RA of node: 158.2846 deg  
 Eccentricity: 0.0011701  
 Arg of perigee: 110.0876 deg  
 Mean anomaly: 250.1559 deg  
 Mean motion: 14.29829808 rev/day  
 Decay rate: 7.2e-07 rev/day^2

Epoch rev: 21587  
Checksum: 323

Satellite: A0-16  
Catalog number: 20439  
Epoch time: 94076.19336562  
Element set: 774  
Inclination: 98.6002 deg  
RA of node: 163.3475 deg  
Eccentricity: 0.0012127  
Arg of perigee: 99.9777 deg  
Mean anomaly: 260.2776 deg  
Mean motion: 14.29885704 rev/day  
Decay rate:  $6.5e-07$  rev/day<sup>2</sup>  
Epoch rev: 21645  
Checksum: 337

Satellite: D0-17  
Catalog number: 20440  
Epoch time: 94076.22662674  
Element set: 773  
Inclination: 98.6015 deg  
RA of node: 163.6736 deg  
Eccentricity: 0.0012240  
Arg of perigee: 99.1450 deg  
Mean anomaly: 261.1119 deg  
Mean motion: 14.30024568 rev/day  
Decay rate:  $7.4e-07$  rev/day<sup>2</sup>  
Epoch rev: 21647  
Checksum: 290

Satellite: W0-18  
Catalog number: 20441  
Epoch time: 94072.21203773  
Element set: 774  
Inclination: 98.6013 deg  
RA of node: 159.7138 deg  
Eccentricity: 0.0012829  
Arg of perigee: 111.2783 deg  
Mean anomaly: 248.9762 deg  
Mean motion: 14.29998941 rev/day  
Decay rate:  $5.9e-07$  rev/day<sup>2</sup>  
Epoch rev: 21590  
Checksum: 327

Satellite: L0-19  
Catalog number: 20442  
Epoch time: 94076.18464293



Element set: 773  
Inclination: 98.6015 deg  
RA of node: 163.8733 deg  
Eccentricity: 0.0013183  
Arg of perigee: 99.4776 deg  
Mean anomaly: 260.7899 deg  
Mean motion: 14.30094641 rev/day  
Decay rate: 8.0e-07 rev/day^2  
Epoch rev: 21648  
Checksum: 333

Satellite: UO-22

Catalog number: 21575  
Epoch time: 94075.24420930  
Element set: 475  
Inclination: 98.4400 deg  
RA of node: 151.5895 deg  
Eccentricity: 0.0007108  
Arg of perigee: 202.4817 deg  
Mean anomaly: 157.6059 deg  
Mean motion: 14.36899328 rev/day  
Decay rate: 9.7e-07 rev/day^2  
Epoch rev: 13973  
Checksum: 324

Satellite: KO-23

Catalog number: 22077  
Epoch time: 94076.18255996  
Element set: 370  
Inclination: 66.0833 deg  
RA of node: 112.6185 deg  
Eccentricity: 0.0011519  
Arg of perigee: 310.3641 deg  
Mean anomaly: 49.6367 deg  
Mean motion: 12.86285535 rev/day  
Decay rate: -3.7e-07 rev/day^2  
Epoch rev: 7495  
Checksum: 316

Satellite: AO-27

Catalog number: 22825  
Epoch time: 94072.21774410  
Element set: 270  
Inclination: 98.6611 deg  
RA of node: 148.9612 deg  
Eccentricity: 0.0009401  
Arg of perigee: 126.7150 deg  
Mean anomaly: 233.4895 deg

Mean motion: 14.27613170 rev/day  
Decay rate: 1.13e-06 rev/day^2  
Epoch rev: 2399  
Checksum: 287

Satellite: IO-26  
Catalog number: 22826  
Epoch time: 94072.20569811  
Element set: 270  
Inclination: 98.6611 deg  
RA of node: 148.9734 deg  
Eccentricity: 0.0009962  
Arg of perigee: 126.0055 deg  
Mean anomaly: 234.2050 deg  
Mean motion: 14.27715988 rev/day  
Decay rate: 1.34e-06 rev/day^2  
Epoch rev: 2399  
Checksum: 312

Satellite: KO-25  
Catalog number: 22830  
Epoch time: 94076.16166154  
Element set: 274  
Inclination: 98.5601 deg  
RA of node: 151.1197 deg  
Eccentricity: 0.0012546  
Arg of perigee: 85.4566 deg  
Mean anomaly: 274.8057 deg  
Mean motion: 14.28040646 rev/day  
Decay rate: 7.7e-07 rev/day^2  
Epoch rev: 2456  
Checksum: 307

/EX

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Date: 18 Mar 94 13:28:00 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: ORBS\$077.OSCAR.AMSAT  
To: info-hams@ucsd.edu

SB KEPS @ AMSAT \$ORBS-077.0  
Orbital Elements 077.OSCAR

HR AMSAT ORBITAL ELEMENTS FOR OSCAR SATELLITES  
FROM WA5QGD FORT WORTH, TX March 18, 1994  
BID: \$ORBS-077.0

TO ALL RADIO AMATEURS BT

Satellite: AO-10

Catalog number: 14129

Epoch time: 94074.03621199

Element set: 269

Inclination: 27.1901 deg

RA of node: 337.1540 deg

Eccentricity: 0.6022168

Arg of perigee: 162.1847 deg

Mean anomaly: 234.6755 deg

Mean motion: 2.05878068 rev/day

Decay rate:  $-1.07\text{e-}06$  rev/day<sup>2</sup>

Epoch rev: 8084

Checksum: 302

Satellite: UO-11

Catalog number: 14781

Epoch time: 94076.08262229

Element set: 674

Inclination: 97.7911 deg

RA of node: 95.1034 deg

Eccentricity: 0.0010946

Arg of perigee: 200.8625 deg

Mean anomaly: 159.2135 deg

Mean motion: 14.69171604 rev/day

Decay rate:  $3.87\text{e-}06$  rev/day<sup>2</sup>

Epoch rev: 53678

Checksum: 318

Satellite: RS-10/11

Catalog number: 18129

Epoch time: 94075.40199974

Element set: 882

Inclination: 82.9231 deg

RA of node: 37.4191 deg

Eccentricity: 0.0010266

Arg of perigee: 287.1702 deg

Mean anomaly: 72.8326 deg

Mean motion: 13.72333370 rev/day

Decay rate:  $4.1\text{e-}07$  rev/day<sup>2</sup>

Epoch rev: 33718

Checksum: 300

Satellite: AO-13

Catalog number: 19216

Epoch time: 94072.40935734

Element set: 893

Inclination: 57.8759 deg  
RA of node: 263.4718 deg  
Eccentricity: 0.7210812  
Arg of perigee: 336.8024 deg  
Mean anomaly: 2.5676 deg  
Mean motion: 2.09719189 rev/day  
Decay rate: 1.66e-06 rev/day^2  
Epoch rev: 4400  
Checksum: 322

Satellite: F0-20

Catalog number: 20480  
Epoch time: 94071.45658699  
Element set: 668  
Inclination: 99.0216 deg  
RA of node: 241.6090 deg  
Eccentricity: 0.0540420  
Arg of perigee: 198.5456 deg  
Mean anomaly: 159.5252 deg  
Mean motion: 12.83224395 rev/day  
Decay rate: -2.1e-07 rev/day^2  
Epoch rev: 19172  
Checksum: 314

Satellite: A0-21

Catalog number: 21087  
Epoch time: 94072.89324047  
Element set: 444  
Inclination: 82.9367 deg  
RA of node: 213.2088 deg  
Eccentricity: 0.0035958  
Arg of perigee: 352.1754 deg  
Mean anomaly: 7.8836 deg  
Mean motion: 13.74535804 rev/day  
Decay rate: 9.4e-07 rev/day^2  
Epoch rev: 15649  
Checksum: 329

Satellite: RS-12/13

Catalog number: 21089  
Epoch time: 94075.53910009  
Element set: 672  
Inclination: 82.9174 deg  
RA of node: 80.1605 deg  
Eccentricity: 0.0030126  
Arg of perigee: 9.5405 deg  
Mean anomaly: 350.6312 deg  
Mean motion: 13.74037277 rev/day

Decay rate: 5.7e-07 rev/day^2  
Epoch rev: 15592  
Checksum: 286

Satellite: ARSENE  
Catalog number: 22654  
Epoch time: 94064.50000000  
Element set: 246  
Inclination: 1.6510 deg  
RA of node: 105.2680 deg  
Eccentricity: 0.2927552  
Arg of perigee: 173.8780 deg  
Mean anomaly: 198.1380 deg  
Mean motion: 1.42201225 rev/day  
Decay rate: -1.19e-06 rev/day^2  
Epoch rev: 299  
Checksum: 250

/EX

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Date: 18 Mar 94 13:34:00 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: ORBS\$077.WEATH.AMSAT  
To: info-hams@ucsd.edu

SB KEPS @ AMSAT \$ORBS-077.W  
Orbital Elements 077.WEATHER

HR AMSAT ORBITAL ELEMENTS FOR WEATHER SATELLITES  
FROM WA5QGD FORT WORTH, TX March 18, 1994  
BID: \$ORBS-077.W  
TO ALL RADIO AMATEURS BT

Satellite: NOAA-9  
Catalog number: 15427  
Epoch time: 94074.03402688  
Element set: 750  
Inclination: 99.0656 deg  
RA of node: 123.3704 deg  
Eccentricity: 0.0015705  
Arg of perigee: 122.8642 deg  
Mean anomaly: 237.4045 deg  
Mean motion: 14.13597974 rev/day  
Decay rate: 1.26e-06 rev/day^2  
Epoch rev: 47704  
Checksum: 309

Satellite: NOAA-10  
Catalog number: 16969  
Epoch time: 94073.99072129  
Element set: 647  
Inclination: 98.5121 deg  
RA of node: 85.8616 deg  
Eccentricity: 0.0012156  
Arg of perigee: 244.1267 deg  
Mean anomaly: 115.8662 deg  
Mean motion: 14.24872785 rev/day  
Decay rate: 1.08e-06 rev/day<sup>2</sup>  
Epoch rev: 38919  
Checksum: 338

Satellite: MET-2/17  
Catalog number: 18820  
Epoch time: 94076.18240290  
Element set: 272  
Inclination: 82.5456 deg  
RA of node: 341.7797 deg  
Eccentricity: 0.0018514  
Arg of perigee: 79.0102 deg  
Mean anomaly: 281.3131 deg  
Mean motion: 13.84711418 rev/day  
Decay rate: 1.27e-06 rev/day<sup>2</sup>  
Epoch rev: 30962  
Checksum: 295

Satellite: MET-3/2  
Catalog number: 19336  
Epoch time: 94072.89393314  
Element set: 268  
Inclination: 82.5411 deg  
RA of node: 31.1102 deg  
Eccentricity: 0.0017651  
Arg of perigee: 137.2192 deg  
Mean anomaly: 223.0298 deg  
Mean motion: 13.16965600 rev/day  
Decay rate: 5.1e-07 rev/day<sup>2</sup>  
Epoch rev: 27071  
Checksum: 276

Satellite: NOAA-11  
Catalog number: 19531  
Epoch time: 94073.96248747  
Element set: 559  
Inclination: 99.1660 deg

RA of node: 60.5963 deg  
Eccentricity: 0.0012728  
Arg of perigee: 40.9981 deg  
Mean anomaly: 319.2144 deg  
Mean motion: 14.12967309 rev/day  
Decay rate: 8.6e-07 rev/day^2  
Epoch rev: 28191  
Checksum: 333

Satellite: MET-2/18  
Catalog number: 19851  
Epoch time: 94075.85339731  
Element set: 271  
Inclination: 82.5182 deg  
RA of node: 217.5195 deg  
Eccentricity: 0.0015409  
Arg of perigee: 122.8587 deg  
Mean anomaly: 237.3935 deg  
Mean motion: 13.84358686 rev/day  
Decay rate: 2.7e-07 rev/day^2  
Epoch rev: 25491  
Checksum: 342

Satellite: MET-3/3  
Catalog number: 20305  
Epoch time: 94075.88142870  
Element set: 4  
Inclination: 82.5576 deg  
RA of node: 333.8085 deg  
Eccentricity: 0.0006499  
Arg of perigee: 152.2875 deg  
Mean anomaly: 207.8581 deg  
Mean motion: 13.04425109 rev/day  
Decay rate: 4.4e-07 rev/day^2  
Epoch rev: 21086  
Checksum: 300

Satellite: MET-2/19  
Catalog number: 20670  
Epoch time: 94075.63449506  
Element set: 773  
Inclination: 82.5434 deg  
RA of node: 281.9855 deg  
Eccentricity: 0.0017468  
Arg of perigee: 47.7992 deg  
Mean anomaly: 312.4642 deg  
Mean motion: 13.84190213 rev/day  
Decay rate: 2.4e-07 rev/day^2

Epoch rev: 18781  
Checksum: 330

Satellite: FY-1/2  
Catalog number: 20788  
Epoch time: 94076.22426307  
Element set: 919  
Inclination: 98.8393 deg  
RA of node: 99.2948 deg  
Eccentricity: 0.0013308  
Arg of perigee: 265.4548 deg  
Mean anomaly: 94.5096 deg  
Mean motion: 14.01312219 rev/day  
Decay rate:  $-1.72 \times 10^{-6}$  rev/day<sup>2</sup>  
Epoch rev: 18082  
Checksum: 326

Satellite: MET-2/20  
Catalog number: 20826  
Epoch time: 94071.91097536  
Element set: 781  
Inclination: 82.5228 deg  
RA of node: 222.5667 deg  
Eccentricity: 0.0012920  
Arg of perigee: 323.8660 deg  
Mean anomaly: 36.1626 deg  
Mean motion: 13.83574515 rev/day  
Decay rate:  $5.9 \times 10^{-7}$  rev/day<sup>2</sup>  
Epoch rev: 17444  
Checksum: 309

Satellite: MET-3/4  
Catalog number: 21232  
Epoch time: 94071.87651682  
Element set: 679  
Inclination: 82.5362 deg  
RA of node: 237.6665 deg  
Eccentricity: 0.0014715  
Arg of perigee: 65.8899 deg  
Mean anomaly: 294.3776 deg  
Mean motion: 13.16460820 rev/day  
Decay rate:  $5.1 \times 10^{-7}$  rev/day<sup>2</sup>  
Epoch rev: 13868  
Checksum: 339

Satellite: NOAA-12  
Catalog number: 21263  
Epoch time: 94074.00396538



Element set: 964  
Inclination: 98.6278 deg  
RA of node: 103.8182 deg  
Eccentricity: 0.0013418  
Arg of perigee: 145.8585 deg  
Mean anomaly: 214.3456 deg  
Mean motion: 14.22379795 rev/day  
Decay rate: 1.80e-06 rev/day^2  
Epoch rev: 14714  
Checksum: 320

Satellite: MET-3/5  
Catalog number: 21655  
Epoch time: 94076.19735930  
Element set: 687  
Inclination: 82.5556 deg  
RA of node: 181.6999 deg  
Eccentricity: 0.0014730  
Arg of perigee: 67.7742 deg  
Mean anomaly: 292.4937 deg  
Mean motion: 13.16828055 rev/day  
Decay rate: 5.1e-07 rev/day^2  
Epoch rev: 12435  
Checksum: 340

Satellite: MET-2/21  
Catalog number: 22782  
Epoch time: 94072.07378319  
Element set: 281  
Inclination: 82.5479 deg  
RA of node: 282.6058 deg  
Eccentricity: 0.0022877  
Arg of perigee: 131.3043 deg  
Mean anomaly: 229.0093 deg  
Mean motion: 13.83002641 rev/day  
Decay rate: 4.4e-07 rev/day^2  
Epoch rev: 2680  
Checksum: 292

/EX

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Date: Thu, 17 Mar 1994 16:43:23 GMT  
From: spsgate!mogate!newsgate!news@uunet.uu.net  
Subject: PC-COM TNC  
To: info-hams@ucsd.edu

Has anyone used the PC-COM TNC? I am having a little trouble with it releasing the PTT on my HTX202. Any other experiences would be helpful.

Thx

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R i c k C o t t l e

N7ZZD

Email:rrbk50@email.sps.mot.com

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Date: Thu, 17 Mar 1994 17:57:28 GMT

From: ihnp4.ucsd.edu!pacbell.com!att-out!att-in!cbnewsm!hellman@network.ucsd.edu

Subject: qsl info

To: info-hams@ucsd.edu

I worked 5B4ADA in the cw contest. I got his PO Box from Dx Clusters but not his name. He's not in the 92 callbook. Anyone know his name?  
(Shees what a concept, you work a guy and all ya get is 599, you don't even learn his name)

Shel Darack WA2UBK dara@physics.att.com

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End of Info-Hams Digest V94 #305

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